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| APPLICATION NO.  | FILING DATE          | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|----------------------|----------------------|---------------------|------------------|
| 10/823,649   | 04/14/2004           | Takashi Kurihara     | 1076.1094           | 4917             |
| 21171 7590 01/29/2007<br>STAAS & HALSEY LLP<br>SUITE 700<br>1201 NEW YORK AVENUE, N.W.<br>WASHINGTON, DC 20005 |                      |                      | EXAMINER            |                  |
|  |                      |                      | DOAN, NGHIA M       |                  |
|  |                      |                      | ART UNIT            | PAPER NUMBER     |
|  | .,                   |                      | 2825                |                  |
|  |                      |                      |                     |                  |
| SHORTENED STATUTOR   | Y PERIOD OF RESPONSE | MAIL DATE            | DELIVERY MODE       |                  |
| 31 DAYS 01/29/2007 P   |                      | PAP                  | ER                  |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|  | Application No.  | Applicant(s)    |  |  |  |
|--|--|-----------------|--|--|--|
|  | 10/823,649   | KURIHARA ET AL. |  |  |  |
| Office Action Summary  | Examiner   | Art Unit        |  |  |  |
|  | Nghia M. Doan  | 2825            |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |  |                 |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>01</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |  |                 |  |  |  |
| Status   |  |                 |  |  |  |
| 1) Responsive to communication(s) filed on 11/28/2006.  2a) This action is FINAL. 2b) This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |  |                 |  |  |  |
| Disposition of Claims  |  |                 |  |  |  |
| 4)  Claim(s) 1-15 and 20-25 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5)  Claim(s) is/are allowed.  6)  Claim(s) is/are rejected.  7)  Claim(s) is/are objected to.  8)  Claim(s) 1-15 and 20-25 are subject to restriction and/or election requirement.   |  |                 |  |  |  |
| Application Papers   |  |                 |  |  |  |
| <ul> <li>9) The specification is objected to by the Examiner.</li> <li>10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).</li> <li>11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.</li> </ul>  |  |                 |  |  |  |
| Priority under 35 U.S.C. § 119   |  |                 |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |  |                 |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date   | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other: | ate             |  |  |  |

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## **DETAILED ACTION**

1. Responsive to the amendment and remarks filed on 11/28/2006, claims 1-15 and 20-25 remain pending.

2. After thoroughly considering the amendment and remarks, Examiner finds that a restriction required for this application because the claimed groups recite different subject matters, see the followings.

## Election/Restrictions

- 3. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-11, 21, and 24, drawn to a method of determining quantity and position of a plurality of power supply pads.
  - II. Claims 12-15, 22, and 25, drawn to a method of estimating sizing of core section of a semiconductor integrated circuit associated with circuit wiring.
  - III. Claims 20 and 23, drawn to a method of estimating sizing of a chip of a semiconductor integrated circuit with including at least one core section associated with circuit wirings, which connect to power supply pads.

The inventions are distinct, each from the other because of the following reasons:

4. Inventions group I (claims 1-11, 21, and), group II (claims 12-15, 22, and 25) and group III (claims 20 and 23) are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the

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particulars of the subcombination as claimed because the combination (group III) has separated utility such as the method of estimating sizing of a chip for totaling the size of the core section and the area of the IO region without calculating IR drop, equivalent circuit network, potential at each pad, bias of power supply to the core section or/and calculating the wire-length, total wire-length, wiring channel, or wiring directional. The subcombination has separate utility such as (group I) a method determining quantity and position of plurality supply pads that is not necessary including the step of calculating the wire-length, total wire-length, wiring channel, or wiring directional. Unlike, (group II) a method of estimating sizing of a core section, which is **not** necessary including the step of calculating IR drop, equivalent circuit network, potential at each pad, or bias of power supply to the core section. Hence, each of subcombinations or combination can perform and function by itself, then each of subcombinations or combination can stand alone as single invention.

The examiner has required restriction between combination and subcombination inventions. Where applicant elects a subcombination, and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

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Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

5. A telephone call was made to Mr. Joseph W. Iskra (Reg. No. 57,485) on 01/17/2007 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

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6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by

a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghia M. Doan whose telephone number is 571-272-5973. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghia M. Doan Patent Examiner AU 2825 NMD

PAUL DINH
PRIMARY EXAMINER
Paul Di W